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Medical Education, 1909-1924[1]

FIFTEEN years ago, under the kindly and patient chaperonage of Dr. Colwell, I began my pilgrimage to medical schools at New Orleans, where Dr. Colwell and I visited the Medical Department of Tulane University. For some three or four years following I devoted myself exclusively to the study and observation of medical education in this country and in the main countries of Western Europe. Then for a period of ten years my contact with medical schools was simply occasional, while Dr. Colwell in behalf of the Council on Medical Education of the American Medical Association kept up, not only his field contacts, but the unremittent hammering to which our American progress in medical education has been so largely due.

About two and one-half years ago I undertook to review once more the entire field, though unfortunately I have not been able to visit as many schools either in this country or abroad as I touched in my original journey, partly because I desired to include in my foreign studies some of the smaller countries of Western Europe—Switzerland, Holland, Belgium, Denmark and Sweden—which I had not previously touched. On the invitation of the Chairman and Secretary of the Council, I am going to make a brief comparison of the conditions, as I found them in 1909–1912, with conditions as they exist in 1924.

No fundamental changes either in respect to equipment, method of instruction or aim of instruction have taken place on the continent of Europe during this period. The war has indeed made it extremely difficult for the smaller nations, which were not themselves involved in the war, to

[1]Address before the Council on Medical Education of the American Medical Association, at Chicago, March 3, 1924.

maintain their hospitals and medical schools at the pre-war level of activity and efficiency, but, though painful economies are being practised, we are perhaps justified in saying that on a long view no permanent damage will have been done.

In Germany and in Austria—the countries which prior to the war easily led the world in the field of medical education and research—herculean efforts are being made to keep at work, despite economic conditions which have discouraged and to some extent disintegrated the university personnel. Relief from the outside and mutual self-help from the inside have accomplished something. Men with ideas continue to work with their heads, if not with their hands, and with an occasional frog, if not with the abundance of animals which they were previously in position to utilize. Distress, failure and revolution have provoked severe criticism. With unprecedented freedom of expression, politics and education have been subjected to searching analysis and criticism. The democratic leaders, influenced largely by American example, have in particular sought to bring the universities into closer touch with the masses. Medical education has not escaped. But the literature in question, outspoken and abundant as it is, does not directly attack what seemed to me the real weakness in German medical education prior to the war. If Germany finds itself once more in a fairly comfortable economic situation, I have little doubt that the universities will quickly recover their vigor. They will become once more productive seats of scientific investigation, and they will afford splendid opportunities for study and training to the abler student; but I see as yet no indication of the thorough-going change in teaching methods which would give a more practical character to medical instruction.

France has been quite stationary, except in so far as the acquisition of the University of Strasbourg gives the country for the first time a modern medical school plant. The medical faculty at Strasbourg is composed partly of

men trained in Germany, partly of men trained in France; and a group, containing representatives of both views, has recently visited England and the United States. The dean of the faculty is a vigorous personality, well aware of the defects of the traditional French type of training, swamped, as it is, by premature and excessive emphasis on the clinic. This combination of circumstances makes Strasbourg a natural experiment station which might endeavor to combine the practical features of French clinical training with the laboratory features and investigative activities characteristic of the German university organization. Whether the Strasbourg faculty, however, will be a real center for educational experimentation in France or whether it will gradually fall into the traditional groove remains to be seen.

In Great Britain, physiology (including pharmacology and bio-chemistry) still maintains its high place, whether viewed from the standpoint of teaching or research. The other medical sciences, long inferior in vigor, now, however, show signs of vitality. A modern institution of anatomy, likely to serve as a stimulating model, has been created at University College, London, under the direction of Prof. Elliott Smith, and plans are being discussed for the development of a broadly conceived school of pathology at Cambridge. Other medical sciences than physiology will thus come to be cultivated in a scientific, rather than a merely instrumental or medical spirit.

Two other innovations must be recorded—both calculated in the long run to modify the excessively practical character of medical education in Great Britain. The English Government is supporting, at several of the London schools, clinical units, the heads of which at University College, St. Bartholomew's and St. Thomas' are recognized as professors of medicine and surgery in the University of London. For the first time professional full-time teachers of medicine and surgery have thus been established in certain of the London hospital schools. A similar departure is about to be inau-

gurated at Edinburgh. The academic character of these men is strongly emphasized, for they are expected to be not only teachers but productive medical scientists. To be sure, their budgets are small and their staffs altogether too limited. If, however, increasing funds can be found, it may be that out of this simple beginning some such development on the side of clinical teaching will take place in Great Britain as has taken place in the United States.

The second hopeful change runs into the first. The English Government has created a Medical Research Council, to which it makes an appropriation of $125,000 a year. The Medical Research Council is fine-combing Great Britain for the purpose of discovering young men of talent to whom fellowships may be awarded, in order that they may spend one, two or three years in medical investigation and research. The Council has also created at Hampstead a small but active research institute. Once more, for the first time in Great Britain, the needs of medical education and research have been frankly recognized, and the government has made provision for the development of young men who, as they become teachers in medical schools, will undoubtedly modify the prevailing too practical and short-sighted point of view.

To recapitulate: Except for the damage done by the war, Western Europe continues to work along the same lines that existed prior to the war. Equipment is good, facilities abundant, and conditions uniform within each of the countries. There is no fundamental or thorough-going distinction to be made between the various institutions of any given country. The same standards of admission prevail, the student body is of the same high quality, and the faculties are relatively complete. In England alone, while general conditions remain what they were, have two interesting developments taken place, namely, the establishment of the full-time medical and surgical units and the creation of the Medical Research Council for the purpose of subsidizing research.

During this same period America has accomplished what at first sight looks like a transformation. Relatively viewed,

progress in this country has been enormously greater than anywhere else. It affects every item that goes to make up a medical school. There were one hundred and fifty-odd schools, so called, in this country fifteen years ago. That number has been practically cut in half. The weak schools in all sections of the country, particularly in the south and west where they are most abundant, have been almost wholly eliminated. Some kind of order has been introduced in the matter of matriculation requirements, though the order is in many respects more apparent than real. Everywhere equipment and facilities have been improved. The laboratory subjects are almost universally taught by full-time and specially trained teachers, though the teachers are in most schools still hampered by inadequacy of support, i. e., inadequacy of staff and equipment. On the clinical side, the situation is less satisfactory. The busy practising physician is still in most schools the teacher of the clinical subjects; clinical instruction continues to be largely given in hospitals neither organized, equipped nor primarily meant for educational use. Nevertheless, the level has generally risen; in the better schools, organization and equipment have been distinctly improved; in the best, a genuinely professional clinical teaching staff of high quality, working amid fairly ideal conditions, has been assembled. Finally, surviving schools have almost without exception found larger sums for their conduct than could have been dreamed of a decade ago. A small group of schools enforce such standards of admission and have procured such equipment and resources that they deserve to be ranked among the strongest institutions to be found anywhere.

For this relatively quicker and greater progress there are several explanations. In the first place, we had further to go; the differences between what was good and what was bad were in America ten years ago far more marked than was the case in any other country in the western world. Progress—dramatic progress—was therefore possible in America on easier terms than anywhere else. Things were

so excellent in Germany, Denmark and Switzerland that very great progress was not to be expected and could not take place within so brief a term. In England and France, on the other hand, though conditions in the different schools in either country were fairly uniform, they were unsatisfactory. Great general progress would have been possible, but it was not made. America, worse off than any of them, bestirred itself actively. This activity is attributable to two factors, leadership and funds. The claim of leadership belongs to the Council of Medical Education of the American Medical Association, to a few leading schools, and to a few individuals. In response to the demand created by these leaders, funds have been procured by universities through taxation and from philanthropic individuals and organizations. The credit, however, belongs not to the money but to the leaders and primarily to the leaders in the profession and the schools. No other country has during this period produced anything like the systematic and energetic campaign carried on in recent years by those responsible for medical education in the United States.

I hope now that I have not only satisfied our national pride but that I have been absolutely fair. Let me repeat that no nation in the world has within the last ten or twelve years made such progress in the organization, improvement and financing of medical education as the United States. On the other hand, let us not deceive ourselves. Let us objectively face the situation, not merely from the standpoint of relative progress during a decade or more, but on the basis of an inventory of what we actually possess today, and let us compare it point by point with what can be found elsewhere.

I have said that in different European countries the medical schools, while varying somewhat in wealth and facilities, are in each country comparatively uniform. There is no essential difference between the medical faculty at Giessen and the medical faculty at Munich, between the medical faculty at Lyons and the medical faculty at Paris, between the medical faculty at Lund and the medical faculty at Stock-

holm, between the medical faculty at Edinburgh and the medical faculty at Glasgow, even though the German type of medical faculty differs from the French type, the French type from the Swedish type, and the Swedish type from the British type. Similarly, within any country the student bodies are also, generally speaking, of the same character. Finally, the facilities, though varying somewhat, do not differ essentially. With all our progress this is still far, very far, from being the case in the United States today. Between the best and the worst, yes, between the best in Class A and the poorest in Class A, the differences are hardly less pronounced than they were fifteen years ago. The best have improved, the poorest have improved, but there is almost as great a stretch between the best and the poorest as there was between the best and the poorest fifteen years ago. Let us consider the factors involved point by point.

On the face of the papers a four-year high school education followed by two years of college work is in the United States required for entrance to a medical school. This looks like uniformity. As a matter of fact, the high school situation in America is utterly chaotic and the college situation hardly less so. No definite meaning whatsoever can yet be attached to graduation from a four-year high school, or to the completion of two years of college work. It means one thing to be a graduate of the Boston Latin School and an entirely different thing to be the graduate of a four-year rural high school in any section of the country. What two years of college work mean, I defy anybody to say. They may mean two years of hard work under favorable conditions; they may mean two years of spoon feeding by college instructors; they may mean two years of skillful cramming by the successors of the late Widow Nolen. Contrast this chaos with the definite standard of intellectual attainment indicated by the certificate of graduation from a German Gymnasium, a French Lycée, or the honors course of an English secondary school. Our student body is, as a whole, at a

higher level of maturity and training than was the student body ten or fifteen years ago, because fifteen years ago there were no general requirements even in name. But it is still much more heterogeneous than that of any other nation in the world. Meanwhile I should also add that certain medical schools do select their student bodies with such care that in these particular institutions a fairly homogeneous student body is assembled at as high a level as is practicable, though even their students are less well trained, I am sure, than the corresponding student body on the continent, where standards of scholarship are upheld by both professional and lay opinion. Improvement in respect to secondary and college education depends on development of courageous educational leadership—now excessively rare—on respect for scholarship in schools and colleges of education, of which there is just now little evidence, and on the formation of a public opinion which will realize that democracy is not synonymous with intellectual mediocrity and inferiority. The outlook is by no means altogether hopeful because under the prevailing mistaken idea of democracy the American high school and the American college are now trying to be all things to everybody. The study of medicine is an intellectual pursuit, and it cannot reach a high uniform level, unless some way is devised of segregating able and industrious students in competently conducted high schools and colleges.

In the matter of the curriculum, a great reform was accomplished when for a brief non-graded curriculum, running two or three years, a graded curriculum, covering four, was substituted. But the graded four-year curriculum has itself now become more of a hindrance than a help. The block system, which requires that the laboratory subjects precede the clinical subjects, is, in my judgment, sound in theory, just as foreign experience shows that it is sound in practice. The graded four-year curriculum secures this arrangement by separating the pre-clinical sciences from the clinical sub-

jects. Suggestions are from time to time heard, to be sure, that clinical subjects should be once more introduced into the early years; but they come from persons who have forgotten the lessons of our former confusion, who have not examined the confusion which exists in the French medical schools, or who do not know that the English, having tailed with a system similar to the French, have now introduced the block. The little experiments now being made in the form of a weekly clinical lecture in the first and second years may safely be left to take care of themselves. They do not cost the student time enough to do any serious damage and they are not likely to spread; for they will be opposed by both the teachers of the laboratory branches and by clinical teachers who, interested in the study of disease, want a solid foundation for their instruction. Of course, laboratory and clinical subjects must be interwoven; but the interweaving must take place mainly in the clinical years, when the student knows some anatomy and physiology, not in laboratory years before he knows either. For this interweaving the responsibility falls mainly on the clinicians: if they know chemistry, physiology, and pathology, and have time enough to prepare their clinics, the interweaving will inevitably take place.

I have said that the four-year curriculum represents an enormous gain over the two- or three-year repeated curriculum that preceded. But it is not by any means a finality. Its uniformity is nothing short of an absurdity. What sound reason can be given for requiring the able and the less able, the industrious and the less industrious, to complete practically the same course of instruction in the same period of time? In Europe, the able student spends the longer period in obtaining his education, because he obtains more and better training. In America, the effort to force inferior schools to be efficient by requiring a four-year course has crippled the better institutions, with the result that with very few exceptions all American medical students spend the same length of time in the medical school and pursue the same

courses to the same end. More than this, the medical schools, though in name university departments, charge themselves with a degree of responsibility for their students which is utterly out of place anywhere but in an elementary school. These two characteristics: (1) the uniform graded four-year course; (2) the paternal, not to say maternal, responsibility which the university medical school in America feels for its students has compelled the best equipped schools to reduce their enrollment to such a point that their opportunities are open to relatively few and their per capita costs are becoming prohibitively high. If the four-year course is broken up, except as a minimum, if we abandon, once and for all, the notion that there is only one way in which to train a physician, if following this, varied opportunities are introduced so that students may by any one of several ways reach the medical degree within different periods of time, and if, finally, we cease to hold the teaching staff responsible for spoon-feeding the individual student, a far more flexible curriculum would be introduced. Of course, we do not wish to develop in America such monstrosities as the medical schools of Vienna, Berlin or Paris, where the students are so numerous that practical teaching is all but impossible. But there is surely a middle path between the classes limited to twenty-five, which we see in America, and the lecture halls containing hundreds, which may be observed on the continent. This middle path cannot, however, be trodden, unless we abandon the school-like features, which I have just pointed out, and treat medicine in fact as in name as a university discipline.

I have said equipment, personnel and teaching have become more satisfactory in the medical sciences than in the clinics. Practically without exception in Class A schools the laboratory subjects are taught by whole time men, specially trained for their tasks. Many schools are, to be sure, understaffed—mainly a matter of money; but even in most of these, the hard-pressed teachers still frequently find time to keep up a bit of research. Thus, though too great diversity

and discrepancy exist between the well-to-do schools at the top and the poorly supported schools at the bottom, one may perhaps fairly claim that something like the same spirit and endeavor characterizes the teaching of the laboratory subjects in America today. We are better off than France and Great Britain, even if less well off than other countries abroad; and once more, our best is nowhere surpassed; indeed, not often equalled.

As to the clinical side, serious defects, lacks and irregularities are still far too numerous. On the continent a clinic is conceived as containing an adequate number of beds, hardly ever less than one hundred, and usually more, with laboratories for teaching and research and a competent teaching and research staff. In Switzerland, Germany, Austria, Denmark and Sweden, practically every medical faculty has in this sense clinics in medicine, surgery, pediatrics, obstetrics, psychiatry, dermatology, ophthalmology and often neurology. In this same sense—a clinic being viewed as containing abundance of material under complete university control, with laboratories for teaching and research and a professional teaching staff—France possesses at Strasbourg a complete medical school and at Paris abundant material, to be sure, though few real university clinics; outside of Paris and Strasbourg, hardly anything measures up to this standard. Great Britain possesses the germ of a few medical and surgical clinics in the London and Cardiff Units, and a pediatric clinic at Glasgow. But a fully developed university clinic, in the sense in which I am speaking, does not today exist in Great Britain. In America—if one is not too strict as respects amount of material—one could perhaps find in our eighty-odd medical schools a dozen or so university medical clinics, six or eight university surgical clinics, five or six pediatric clinics, five or six psychiatric clinics, one or two obstetrical clinics; special clinics in the German sense in neurology, dermatology and ophthalmology are unknown. Contrasted with the poverty of a decade ago, progress has

been marked, for such clinics, as have been created in this brief period, are, though too limited in amount of material, admirably equipped and well supported; but we have a long road to travel before a desirable minimum has become general. Meanwhile, let me add, there has been a striking and quite general improvement in all hospitals, whether teaching or non-teaching. The facilities for teaching, treatment and in a measure for research have improved immensely within a decade. What is even more significant, ideals have been strengthened; men realize that more is expected of them. Hence, more and better work is going on. This is all to the good and I am happy to acknowledge and record it; but it is wholesome for us to realize at the same time the great gaps that exist on the clinical side in our teaching institutions, the great strides that still have to be made before we can present even a tolerably even and a tolerably unbroken front.

In respect to clinical teaching, with all due sympathy for the State of Connecticut, the real scandals in the teaching of regular medicine have been almost entirely suppressed and eliminated; clinical teachers undoubtedly give more time and thought to their school duties than they did a decade ago. In a few places, full-time teaching has been introduced; in a few others, a more or less close approach to it.

In the strongest institutions, of which I am now speaking, perhaps a half dozen in all, the material conditions which make for good teaching and productive clinical research are perhaps the best to be found anywhere in the world. It remains, I am free to say, to be seen whether they are worth what they cost, whether patients will be so much better cared for, teaching so much better done and research so much more fertile, that the expenditure of money and energy will be fully justified. A heavy responsibility rests upon these favored groups, a responsibility of which, taken altogether, I believe them fully conscious. Of the remaining schools—over seventy in number—we

may fairly say that clinical teaching has been partly professionalized in some, hardly at all in some and not at all in the rest. Thus to a considerable, though varying extent, clinical teaching continues to be an incident in the life of a busy practitioner. The good practitioner is, and should be, the busy practitioner; the teacher, however, needs leisure—more leisure than the practitioner—to read, study and investigate. The two callings are inherently at war, just as all serious purposes in life get in one another's way. We have as yet neither institutional nor scientific standards strong enough to control, as, on the whole, they did control in the Germany of the good old days.

At this point I should like to call attention to a distinct peculiarity in our American situation. On the continent, except, I believe, at Brussels (Brussels is only a partial exception), universities are state-supported; the hospitals used for teaching are sometimes nationally supported; sometimes provincially supported, sometimes municipally supported; only occasionally are they, and as a rule even then in part only, supported by endowment. But in any case, the clinical teaching privileges of the state-supported and controlled university are so unrestricted that, educationally viewed, the medical faculty is a state affair. In Great Britain, on the other hand, despite the occasional state subvention, the medical faculty is in private hands.

Both systems are found in America. East of the Mississippi, medical schools are privately supported; west of the Mississippi, they are mainly tax-supported. In general, it would look easier to raise the necessary sums by taxation than by private subscription; for an infinitesimal tax levy will produce a considerable sum, while $1,000,000 in cash must be raised every time an endowed institution needs an additional income of $50,000. Thus far, however, it has proved easier to interest a small group of private donors than to stir the entire body politic. Hence, the leadership in medical education in the United States lies at this moment incontestably with institutions under private management.

Only one of the states, Michigan, has provided a plant comparable with the best plants of the endowed schools; Iowa will shortly be in the same class; Wisconsin is about to start a hospital of moderate size; Illinois has ambitious plans, the realization of which has begun. The other states lag behind—some of the richest lag amazingly far behind. Meanwhile, two municipalities, Cincinnati and Louisville, have given local medical schools complete control of their respective city hospitals, and one, Rochester, New York, has been wise and far-sighted enough to make its new city hospital part and parcel of the university hospital of the local university, an endowed institution. Fragmentary privileges, sometimes very valuable, as at the Boston City Hospital, sometimes almost valueless, are conceded to endowed institutions by other municipalities. In general, however, the vast educational potentialities of city and state hospitals are either wasted or very ineffectively utilized. Meanwhile, the cost of maintaining separate university hospitals by subscription or endowment is so great that, unless already existing facilities are made available under unqualified university control, our clinical development will be heavily handicapped, as compared with that of continental nations; for our universities, under necessity of providing out of their own funds hospital as well as teaching budgets, will be seriously disadvantaged, as compared with European universities which obtain, without expense to the university budget, hospital facilities far greater than we can possibly endow. In this matter the state universities will enjoy an advantage in comparison with our endowed universities, if they succeed in obtaining the funds necessary to provide teaching and research on a liberal basis.

The brief survey which I have made shows, I think, that, though we have made more progress than any other nation in the last decade, though our best is in certain respects equal to the best anywhere and in one or two respects perhaps superior, still the truly excellent is still in America decidedly the exceptional. Let us not forget that. I re-

peat—in medical education in America, the truly excellent is still exceptional. We are still near the beginning. Our few medical, surgical, pediatric and psychiatric clinics need to be many times multiplied; and we must now begin to develop special teaching and research clinics in important fields hardly as yet touched.

The frank exposition which I have now completed gives no ground for discouragement, but as little for complacency. We have accomplished much; but much more remains to be accomplished. May I briefly indicate some details?

The whole country needs to reconsider the problem of secondary and college education. We are passing through a quantitative orgy. For years we have been mainly engaged in getting more people into high schools and colleges. They are all bursting with pupils. It is time to look at the qualitative side—to ask ourselves where and how we are to get teachers and what we are to exact of students in the way of intellectual performance. It is a question that this Council can do nothing about. But the people at large and those charged with secondary and college administration must show unwonted courage and intelligence if order is to be brought out of the existing chaos.

The Council can, however, make an important contribution through a reclassification to be effective after a period of years. I deprecate haste, for haste is apt to get fulfillment of the letter rather than of the spirit—and it is the spirit that counts. And, inasmuch as our weakness is now mainly on the clinical side, I should hope that the new classification would emphasize clinical development. If a clinic is conceived as containing something approaching one hundred beds with laboratories for teaching and research and a staff unconditionally chosen by the university on the basis of competency, and if, further, such clinics in medicine, surgery, pediatrics and obstetrics are considered indispensable to a Class A school, a new classification would take place spontaneously. In another decade, other subjects could be similarly treated. It will take us twenty or thirty or forty

years to round ourselves out—but the precise period need not trouble us, if we are steadily, never hurriedly, never rashly, moving towards a definite goal.

There is another point that needs clarifying. Our medical schools are now, thanks, above all, to the energy and wisdom of Dr. Bevan and his associates on this Council, practically all university departments. But the universities are by no means all conscious of just what that means. University connections mean university ideals, university contacts, university support. University ideals include effective teaching and productivity; how many university heads apply the same standards of teaching and research to medicine as to physics? University connections mean university contacts; but there can be no effective university contacts if the medical school is a practically autonomous and self-contained institution situated in a remote town or, worse still, is divided in the middle, the laboratory half of it on the university campus, the clinical half left to the tender mercies of busy practitioners, whether ten or a hundred miles distant. The medical school is, as a matter of fact, an organic thing, laboratories and clinics requiring intimate interaction; a split school is, therefore, in my judgment, utterly untenable. Moreover, the entire school needs contact with the rest of the university. In some cases, this has become impossible; every effort should be made in these cases to circumvent the disadvantages due to separation. Finally, university connection means university support. Not the dean or the faculty, but the president and trustees should procure the funds needed to develop the medical school, just as they now procure the funds needed to provide for the colleges of art and science. The business of the medical faculty is to look after patients, students and science. They have no time to hunt money. Deans and professors in colleges of art don't have to go begging for money. Hence, though our medical schools have become university departments in name, they are not yet fully university departments in fact; nor will they be, until the medical faculties train presidents and trustees. Let me

add in fairness that there are exceptions—a few presidents and treasurers take as much interest in financing their medical schools as they do in football—a few!

May I add one further word touching on teaching personnel? The men who, a generation ago, gave American medicine its momentum were men of cosmopolitan training; they knew the best in our own country, Great Britain, France and Germany. They read and spoke German and French; they had intimate personal associations with the prominent European workers. As conditions have, however, improved in America, workers have tended to stay at home. The best of them can read scientific German or French, but amazingly few can really read or speak any language but their own; and they have no such personal intimacies as their predecessors. Now, however much we have improved, we are not good enough to be sufficient unto ourselves, and we never shall be. Science is international; it advances in most unexpected fashion, now here, now there. And stimulus does not communicate itself best through the printed page. Men must know each other and work with each other. Mere Cook's Touring through scientific laboratories abroad does not suffice. We must return to the old way of spending a couple of years in Europe, just as Europeans are getting in the way of spending a year or two with us. At the moment, expense makes this a serious matter; perhaps it can never be as common as is desirable. But for the leaders and those who aspire to leadership, cosmopolitan training is absolutely indispensable. If the fact is once recognized, ways can probably be found to circumvent the economic difficulties.

ABRAHAM FLEXNER.

Education and Industry

WHILE motoring through one of the rich agricultural sections of Pennsylvania not long ago, I observed one of the many skillfully arranged advertisements, on which the historical information was given that a small borough a few miles ahead had been founded by a man who had also established in that vicinity a forge. This forge was used during the Revolution to manufacture bullets for the Continental Armies. It was also used to manufacture tools and implements of iron which were needed in the neighborhood. It may, therefore, be said to have been the steel plant of that day.

Motoring to the eastward fifty miles, we came in full view of the Bethlehem steel plant. During the World War, the Bethlehem Company manufactured and delivered to England, within a period of eight months, 25 submarines. This same plant made 19,000 big guns, used by the Allies during the war—more guns than Germany possessed when she signed the armistice.

In negotiating contracts with the Bethlehem Company, Lord Kitchener told Mr. Schwab that he would be satisfied if the Bethlehem Company could deliver to England one million shells during the first year of the war. The Bethlehem plant actually turned out 36,000,000 shells that year—three millions in one month instead of one million in twelve months. Furthermore, this modern steel plant manufactured one-seventh of all the shells shot by the Allies during the World War.

Leaving Chicago and passing through Gary, Cleveland, Youngstown, Sharon, the Pittsburgh District, Johnstown, Burnham, Lewistown, Duncannon, Harrisburg, Steelton, Philadelphia and Wilmington, one observes hundreds of great modern steel plants, which represent property values extending into the billions, which give employment to hun-

dreds of thousands of men, and which are engaged in manufacturing articles essential to our comfort, health, happiness and prosperity. These industries have been founded for the primary purpose of serving the needs of mankind, and have been potent factors in the development of our civilization.

At the time when the forge was supplying the needs of our fathers by manufacturing tools and implements of iron, the spinning wheel and the hand loom formed another agency which was serving one of the vital necessities of life. These, too, have had their development, and in their places are to be found great modern textile plants which have been established in many sections of the country. These plants also represent enormous property values, give employment to hundreds of thousands of workers and are meeting the needs of mankind, on a scale commensurate with the requirements of the present day. They could not survive if their services were not indispensable to the needs of our civilization.

In the days of the forge, the spinning wheel and the hand loom, we were an agricultural people, and our plowing was being done with a crude implement, very much like the one Elisha was using to turn the brown earth in the Valley of Ajalon when Elijah cast his mantle upon him. In any of our great agricultural regions, with the coming of spring, three men and a disk plow, drawn by a tireless tractor and trailing a harrow, will turn twelve furrows at a time and prepare more ground, in better form, in one day than any three farmers in the days of George Washington could have prepared in two weeks.

Charles Carroll, the last living signer of the Declaration of Independence, turned the first shovelful of earth in 1828 for the construction of the first railroad in the United States. Thus, as President Hadley aptly said, "One man's life formed the connecting link between the political revolution of one century and the industrial revolution of the other."

In 1829 the School Board of Lancaster, Ohio, refused to permit a debate on the practical use of the railroads, saying:

You are welcome to use the schoolhouse to debate all proper questions in, but such things as railroads are impossibilities and rank infidelity. There is nothing in the word of God about them. If He had intended that His intelligent creatures should travel at the frightful speed of fifteen miles an hour, by steam, He would have clearly foretold it through His holy prophets.

In 1830 there were twenty-three miles of railroad in this country. In 1920 there were over 250,000 miles of main line in the United States—more than one-third of the total railroad mileage of the world. Railroads, steamship lines, and modern means of communication, including the cable, the wireless and the radio, have revolutionized the commercial and political affairs of the world and have not only bound all sections of our country together but have brought the whole world into more intimate and cordial relation with us.

Equally striking changes have taken place in the field of finance. After the battle of Trenton Congress invested Washington with full power to raise and equip a greatly increased army, but gave him no money with which to pay the bills. Robert Morris, of Philadelphia, being appealed to, sent to Washington all the hard money he could obtain. Washington wrote Morris that he needed $50,000 at once. The money was borrowed from a friend by Morris on his personal note and delivered by messenger to Washington the following day. In colonial times extensive banking facilities were not needed to meet the needs of a sparsely settled population and small scale industry.

The World War cost $186,000,000,000 in money and credit. The United States raised billions for financing the part which she had in that conflict and in addition thereto loaned many other billions to our allies. This action was possible because of the banking facilities which the country possessed. Every community today has its banks which furnish the credit for financing the farms, the factories, and all other business and philanthropic enterprises. They are serving everyday needs of all classes of citizens.

Similar developments in every phase of the business and commercial life of the nation have taken place. The country

has grown and expanded from a population of 4,000,000 to 110,000,000, and from an area of 300,000 square miles on the Atlantic Ocean to 3,000,000 square miles—equal approximately to five-sixths of the area of all the countries of Europe.

The inventive skill and genius of man, the achievements in scientific research and experimentation in physics, chemistry, and biology, the modern methods of agriculture, the gigantic development of facilities of transportation and communication, and similar forces working in harmonious cooperation have contributed to these marvelous developments.

But coincident with the action of these forces profound changes in economic thought and political practice have exerted a powerful influence on those great forward movements which have revolutionized our civilization.

During the Middle Ages it was the current belief that one party to a transaction could profit only at the expense of the other party. Heavy duties on imports and exports were employed to keep trade at home and thus prevent the wealth of the community from falling into the hands of outsiders. In the year 1776 Adam Smith published "The Wealth of Nations." In that book he crystallized the idea that was being formulated in the minds of many that isolation means poverty and weakness, that exchange-cooperation makes for wealth and power, and that no permanent exchange of goods, ideas, or services can be maintained unless all parties to the various transactions profit, in one way or another, thereby. In many respects the teachings of Adam Smith on this point are still an aspiration rather than an achievement. However, substantial progress has been made.

There was a time, for instance, when bankers were litttle more than money lenders. They now see clearly, however, that their prosperity, indeed the discharge of their obligations, involves much more than the successful discounting of well-secured notes. The American Bankers' Association has organized an Agricultural Commission whose duty it is to recommend ways and means for improving agricul-

tural conditions. The Commission has endorsed the action of certain western banks in buying blooded cattle and selling them on easy terms to the farmers in their territory.

The Director of the Commission, at the recent Atlantic City meeting of the Bankers' Association, recommended that each bank undertake to finance at least one worthy boy or girl through college, the money necessary to be loaned, and the bank to be protected by a life insurance policy.

The sense of trusteeship, so plainly shown in numerous ways by the Bankers' Association, is symptomatic of the growing realization in all lines of business that all parties to the transactions in our commercial and industrial life, producer and consumer alike, must profit if there is to be peace and prosperity for any of them.

The manufacturers of agricultural implements engage actively in the promotion of programs for the education of the farmers. Safety devices for the protection of employees are installed at great expense by factories. Mechanical agencies to relieve workers of drudgery and physical burdens are provided also in all fields of human activity. Schools and hospitals, teachers, nurses and physicians are provided by railroads and the great commercial and industrial concerns of the country for meeting the physical and intellectual needs of their employees. In some instances the voice of the worker is heard in the establishment of general policies at the council table and the principle of profit sharing has been adopted. All these have been established in recognition of corporate obligation, and in the spirit of service, justice and fair play. That attitude is in harmony with the basic character of our people and the spirit of our institutions.

The keynote of American life is individualism. Our democracy itself is a social device designed to promote the material and spiritual welfare of the individuals composing it. It is a means to an end—not an end in itself. Back of every specific practice and every motivating ideal in our complex relationships stands the individual striving with

what light he possesses to make a better living and to live a better life.

The foundations of American individualism were laid by the pioneer. Self-reliant, courageous and asking no favors from fortune, he blazed his way from Plymouth Rock to the Golden Gate. The genius of the pioneer for cooperative group action, however, was no less pronounced than his independence of spirit. It is just that capacity for team play, without loss of personal independence, that characterizes the collective individualism of America.

In the Declaration of Independence the colonists served notice to the world that America was not a private estate to be exploited by any special interests. The Revolutionary War was fought to a successful conclusion and, in due time, a constitution for the new nation was adopted in the name of "WE, THE PEOPLE."

These opening words of the preamble sound the slogan of democracy and mark the beginning of a new era in the long struggle for human liberty. They committed the people of the United States to a nation-wide cooperative effort to

> "form a more perfect union,
> establish justice,
> insure domestic tranquillity,
> provide for the common defense,
> promote the general welfare, and
> secure the blessings of liberty"

for themselves and their posterity forever.

The signing of the Declaration of Independence did not secure the political freedom of America. Nor did the adoption of a constitution in the name of "WE, THE PEOPLE" establish, at a stroke, whole-hearted, intelligent, and continuous cooperation all along the line in the conquest of a continent and in the building of a home for a great people. It takes time to educate a whole nation, and the problems set in the progress of our national history have been increasingly more difficult. As an instance, the population of the United States in 1900 was about 75,000,000, its wealth

88 billion dollars, and its annual income 18 billion dollars. In 1920 the population was 105 million—an increase of 40 per cent in twenty years, the national wealth 400 billion dollars—an increase of 350 per cent, and the annual income 70 billion dollars—an increase of 280 per cent.

The industrial revolution provided the mechanical devices and the productive organization by means of which the material basis for this conspicuous growth in population and wealth was secured. Correlated with this development has been a growing realization of the fact that we are all members of one body. Without that realization our material prosperity would have been impossible. It has inspired the constant widening of the range of cooperation, has intensified the spirit of fair play, and has refined our notions of integrity in business. At the same time, our democratic organization has maintained an open road for merit, and has afforded an unlimited field for the expression of free initiative in productive service.

The outcome of this fortunate combination of mechanical appliances, economic sanity, and political freedom has been the establishment of a sensitive network of interrelationships and interdependencies upon the integrity of which our very lives depend. Our food and drugs come to us from the corners of the earth and we must trust to the honesty of men unknown to us for their purity. We are incompetent to judge the quality of most of the things we buy and use; we must depend upon the word of men whose business it is to know in each particular case. The opportunities for service have increased many fold in these last days, but the opportunities for neglect of duty, for breach of trust, and for wrong doing have increased with equal rapidity. Relationships between man and man are not personal and direct as they were in Colonial days. It is vastly more difficult to fix responsibility now than it was then, and it requires an exactness of knowledge, a keenness of discrimination, and a fineness of conscience to do the right thing in our involved and impersonal relationships that were quite unknown when living conditions were simpler.

Half the population of the United States, according to the Census report, lives north of the Ohio and Potomac rivers, and east of the Mississippi. Most of the great industries are concentrated here in proximity to the labor supply and the markets of the world. Seventy-six per cent of the farmers and 74 per cent of the land values of the United States, however, are found outside this area. Without transportation service the factories would have to close, and famine would quickly overtake the industrial and urban populations. Without transportation service the farms would be isolated, the farmers would have to go back to the primitive plow and spinning wheel, and the whole country would become as sparsely settled as was Kentucky in 1824. On the other hand, without farms, factories, markets, and banks, the railroads could not operate.

Labor, capital, and management; agriculture, mining, manufacturing, transportation, commerce, and banking have contributed to the upbuilding of the nation. Each is dependent upon the other, and the failure of one is the failure of all.

Notwithstanding the marvelous development of our basic industries, and probably because of that very development, they have always faced difficult problems of mutual adjustment, and the situation today is nothing short of bewildering. The bulk, weight, value, and perishability of commodities; the length, speed, and cost of haul to market; and the conflicting and competitive interests of localities vary so widely that the problem of cooperation on a basis fair to all is a most complex and difficult one. New centers of production and new enterprises are being developed constantly, the volume of business varies greatly from time to time and from place to place, and continuous readjustments must be made to meet the changing conditions.

Under these circumstances, the maintenance of a just balance among the elements that contribute to national welfare, to the end that all may derive the optimum profit from their varied and interdependent transactions, demands the possession of an authoritative body of facts upon which to base judgments and decisions. The maintenance of that

just balance demands also a high order of intelligence and mental integrity to interpret those facts aright. It demands, further, an abiding spirit of service and an ingrained desire to do the right thing in directing individual and group conduct to the best interests of all.

This means nothing less than education of all the people all the time. This education must be absolutely non-partisan and impartial, and it must be ceaseless, untiring, and patient. The structure of modern cooperative society must have a more adequate representation in the curricula of schools and colleges in order that this and coming generations may not be overwhelmed by the problems of conduct they will be called upon to face. They must be endowed with a grasp of facts and imbued with a social conscience commensurate with the responsibilities that will fall to them.

A recognition of this imperative need for impartial, non-partisan, and continuous research, publicity, and education in regard to our basic economic and social activities and especially in regard to transportation—the connecting link between all the others—led to the organization of the National Transportation Institute. According to the by-laws:

> The object of the National Transportation Institute shall be to conduct non-partisan and impartial investigations and research into every kind of transportation and the relation of transportation agencies to each other and to Agriculture, Industry, Finance, Trade, and Commerce, and to disseminate the facts thus acquired to the public.

The by-laws state further that:

> The Institute shall not in any way become directly or indirectly the representative either of transportation agencies, producers, shippers, or of any special group or groups.

The Board of Directors is comprised of representative men of affairs who are recognized as outstanding leaders in agriculture, mining, manufacturing, transportation, commerce, labor, and finance.

The by-laws provide for a Research Council whose duty shall be to make impartial investigations in problems of trans-

portation and related industries. The research work is under the direction of a council which must consist of not less than nine nor more than fifteen members. The Council is made up of men who have achieved high distinction in economic research in this country.

The results of the studies made by the Research Council will be made known to the public through the Public Relations Division, under the direct supervision of the president of the Institute. The by-laws of the Institute provide that the information disseminated shall be based solely upon the findings and approvals of the Research Council.

Arrangements have already been made with colleges and universities in various parts of the country to conduct short courses in transportation, and the Institute has secured the services of the following lecturers:

Prof. Emory R. Johnson, University of Pennsylvania.
Prof. Harold G. Moulton, Institute of Economics.
Prof. Frank M. Dixon, Princeton University.
Prof. T. W. Van Metre, Columbia University.
Prof. Charles L. Roper, Syracuse University.
Prof. Arthur H. Blanchard, University of Michigan.
Prof. Harold Whitehead, Boston University.
Prof. G. W. Dyer, Vanderbilt University.

The function of organizing an Education Division in the Institute has been assigned to me. The work of this division will be to cooperate with educational leaders, institutions and other agencies interested in helping our people to arrive at an adequate and proper comprehension of the great economic, social and industrial problems which have developed within the field of transportation and related activities. We shall select a group of educational experts to give professional advice and approval to the activities which shall be undertaken. The experts chosen shall be subject to confirmation by the executive officers of the National Education Association and the American Council on Education.

The public generally, and even boys and girls, in the days of the forge and the spinning wheel, understood clearly the economic basis upon which these and other industrial agencies

were operated. They were in intimate contact with the whole round of industries, largely local in nature, and participated more or less actively in them. They possessed an appreciation of the service which various agencies were rendering in providing the limited necessities required for the simple life of those early days. They also understood the relation of prevailing industrial agencies to the home, to the farm, to the merchant, to the shipper, and to society in general.

Conditions in respect to such matters are entirely different in these days of large scale production and impersonal relations. Boys and girls and the public generally do not understand the economic principles upon which industry, commerce and other basic activities are conducted. Yet the general welfare and prosperity of the country are dependent upon our people as a whole possessing an accurate knowledge of the way our system of production and distribution works, and having an intelligent understanding of the principles underlying its organization and operation.

The whole mental atmosphere of the classroom should be modified in view of these facts. The lesson must be taught from the primary school to the university that America is a great cooperative enterprise, depending industrially and socially upon what each individual contributes to the solution of its problems. From the day laborer to the managing head of our great industrial and financial institutions there must be developed the spirit of service, the doctrine that he who contributes most for the common good will reap the largest returns in personal profit and distinction.

The National Transportation Institute will in no way obtrude itself in the field of public education. It has, however, a vital interest in educational progress and achievement. It has abundant resources of information which it wishes to make available where it may be of service. It desires to cooperate in every legitimate and professional way in the development of education programs in the public schools and the colleges and universities so that the coming generations may possess a sound understanding of the phi-

losophy of our democracy, a clear appreciation of their duties and obligations as citizens, and a sane comprehension of the relation of all groups and interests in our modern industrial society. The Institute desires to join with all the forces of the country engaged in developing the true American spirit by instilling in the soul of every citizen in our land the duty of discharging his full obligation of intelligent and conscientious *service*.

International Educational Relations

WORLD peace is one of the livest topics of the time. It is being discussed from every conceivable point of view, by out-and-out pacifists and by those who believe in military preparedness as the only sure guarantee of security. Yet through all the diverse schemes for a warless world there runs one common thread of thought. It seems to be taken for granted everywhere that education is the agency for ultimate achievement of that mutual understanding and good-will which are the essential foundations of dynamic peace.

The international migration of students has been going on from time immemorial, generally in a haphazard and unsystematic way, depending largely on individual initiative. Efforts are now being made to organize definitely for its encouragement—as witness the many scholarships and fellowships similar to those of the Rhodes Trust, the international exchange of professorships, the organization of an International Federation of National Education Associations, and the establishment of numerous other agencies like the Institute of International Education as centers of information and assistance in the practical administration of foreign student exchange.

Higher education is of necessity vitally concerned with international relations. As science continues to annihilate space and nations are inevitably drawn into ever-closer intellectual and economic cooperation, young America cannot fairly be said to be either liberally educated or qualified for leadership unless it is trained to cope intelligently with things as they are. The college man or woman of the future must understand and be able to interpret life not only nationally but internationally.

An individual nation acting alone cannot make much progress toward world peace. No more can an individual college

acting alone make much progress in solving the national and international problems of education. Team play is essential for maximum success—a team play that is inspired by the spirit of service and sacrifice and yet is operated with the utmost technical skill and knowledge of the rules of the game. Such team play won the war.

During the war American colleges and universities banded themselves together in two separate organizations, one for cooperation on national educational problems and the other for the maintenance of American headquarters for university men in war service in England and France. Both these organizations have persisted since the war; the former, the American Council on Education, dealing with the national aspects of higher education, and the latter, the American University Union in Europe, serving as a *liaison* between the higher education systems of England and France on the one hand and that of the United States on the other.

Though the original purpose of the American University Union in Europe was accomplished when the war was over, it had so demonstrated its power for developing those international educational relations that make for mutual understanding and good-will, that it has been kept up by the American colleges and has laid a firm foundation for lasting and significant progress toward international cooperation.

The British and the French manifest the same cordial spirit toward this enterprise as is expressed by America through the foreign headquarters of the Union. The education offices and the leading educators of both nations frequently call on the Union for assistance and are ever ready to help realize constructive plans for mutually beneficial undertakings. The foreign attitude and their understanding of the far-reaching consequences of the work of the Union was clearly stated by the Prince of Wales at the sixth annual banquet of the London headquarters. He attended the banquet and voiced British sentiment on this subject as follows:

There are special reasons which made me look forward to this

evening. In the first place, when I look round and see all the harm that war has done to the world, it is a real relief to come in contact with something which owes its origin directly to the war, and yet has brought civilization nothing but good. Your union came into being in 1917 to deal with a situation which war had created. There is no doubt, I think, that but for the war its birth might have been long delayed, and the English-speaking race would have been all the poorer in consequence; it would have been the poorer by a war child which is growing up into a great power for peace.

Secondly, I am much in sympathy with the main object you have in view. You aim especially at giving your young men the double benefit of a university education and of overseas experience. That, in principle, has been my own education, and well do I know its worth. I did not, it is true, combine the two things simultaneously, as your students do; I went first to a university and then rounded off what I had tried to learn there by traveling many thousands of miles and by visiting most places in the world. Although the program was different, the result, I hope, has been the same; and, if I may say so, it is the finest education a man can have. The men of this generation in your country and in my country have got to learn to be men of the world in the true sense of the term; we have got to cure ourselves of any small feeling of remoteness from our fellow-men across the seas. As that great Ambassador and great gentleman, Walter Hines Page, once said, we have got to drop that word "remote" from our vocabulary and from our thought. To this end, nothing will help more surely than the system which your union is building up.

So far, I have been speaking of the work of your union in its widest application. May I now say something of one particular branch, your British division, whose activities naturally make a special appeal to me. It is my firm conviction that the foundation of this branch here in London will prove in the future to have been of incalculable importance to the English-speaking race. I do not mean only to those members of it who have a university education, but I mean to the race as a whole.

Seven years ago, one of our greatset statesmen wrote to Mr. Page the following words, which I should like to read to you: "I have now lived a long life; but, if I have been fortunate enough to contribute even in the smallest degree to drawing close the bonds that unite our two countries, I shall have done something compared with which all else I may have attempted counts in my eyes as nothing."

Those words suggest an ideal which, I can assure you, is a very real thing to all my generation in this country. I have had the privilege of seeing your armies in France and your citizens at home, when

I visited the United States in 1919; I have also met quite a few of your students over here; from what I have seen and from the friends I have met, I feel that ideal is no less real to our contemporaries on the other side of the Atlantic. We shall have many opportunities of furthering this ideal, and we must lose none of them; but here, ready to hand, in this union of yours, is an opportunity which has already been seized, and which is rapidly becoming a great power for the good of us all. I know enough of our British universities to be certain of one thing—that whatever the graduates and undergraduates you send here may or may not learn during their residence, they will at any rate learn to love those universities and will, I hope, think not too badly of the land which instituted them. And when they go home they will, I know, not forget it.

That you are welcome here, I need hardly say—all of you, and as many more like you as your country can spare us. Nor do I doubt that a welcome no less warm awaits our own university men over there; but are we making the most of it? It is to our national credit that it was an Englishman who first gave practical expression to the idea which animates your union. Cecil Rhodes, a pioneer in all that he did, was the pioneer of this movement; and we in this country must follow up the trail which he blazed, not merely by extending to your graduates and undergraduates our hospitality but by encouraging our own university men to take advantage of yours. There are fifty-four American colleges and universities which subscribe to your union; I should like to see a resident British graduate in every one of them.

From the foregoing it is clear how great is the opportunity for real progress in international understanding through educational relations and how little has been done to grasp these opportunities. That the opportunity is recognized, is indicated by numerous recent efforts to encourage and organize student exchanges. Two of these were presented in the last number of the EDUCATIONAL RECORD. Others are taking shape in the Y. M. C. A., the U. S. Chamber of Commerce, the National Highway Education Board, the Laura Spelman Rockefeller Memorial and the Institute of International Education. All are founded on the same conception; namely, that education is the sure road to international understandings that insure human progress.

The appearance of these and many other projects and suggestions for developing international educational relations

has naturally raised the question how this enterprise can be organized so as to secure the largest results with the least lost motion. It is obviously confusing and wasteful to have a separate organization for each undertaking, each dealing with some particular phase of the problem and with some particular group of colleges. It is also clearly essential that the educational institutions themselves should initiate, control, administer and support any agency that is created to operate in this field. It is in addition evident that national and international problems in education not only are closely related, but that they also are best solved when their interrelations are recognized.

As a first step toward better organization for the development of international educational relations, a merger has recently been consummated between the American University Union in Europe and the American Council on Education. By the terms of the merger, the same group of men who have as trustees of the union so successfully administered its affairs will continue to manage them as the Council's Committee on the American University Union. Financial security for this work for the next five years is guaranteed by a grant to the Council from the Laura Spelman Rockefeller Memorial, which has agreed to match the Council's income dollar for dollar up to $35,000 a year. All the money from the Memorial will be devoted to development of international educational relations.

As a further coordination of effort in the same direction, the Institute of International Education has become a constituent member of the Council. Negotiations are in progress to determine how the Council and the Institute can cooperate so as effectively to achieve their common objective without duplication of effort. The coordination of work between these agencies is a long step toward coordination of the activities of all agencies in this field.

There is thus developing an organization that offers to every college and university of recognized standing an opportunity for service and cooperation not only in solving national

problems, but also in creating international understanding. The Council truly represents higher education in America because it is owned and operated by the institutions of higher education themselves. For this reason also it commands confidence, both in this country and abroad. If the colleges and universities of America rally to its support and continue to develop it, they can both increase their own powers of training men for enlightened service and do their bit toward the achievement of international understanding, which means ultimate world peace.

C. R. MANN.

Pending Education Bills

THE FOLLOWING bills dealing with education are now before the Education Committees of the Senate and House:

S. 694.

Introduced by Mr. Kenyon (By Request), December 10, 1923. "To provide for the world-wide extension of education by the cooperation of national Governments."

This provides for the creation of a Commission to consist of the U. S. Commissioner of Education and two other persons appointed by the President "To extend, in cooperation with other nations, education to all mankind." The program proposed is "The removal of illiteracy from all mankind; instruction in the applications of science and mechanics to the work of the world and the physical welfare of mankind or world health, international or world ethics promotive of just and humane government the world over."

An appropriation of $10,000,000 is authorized to carry out these provisions.

S. 1337.

Introduced by Mr. Sterling, December 17, 1923. "To create a Department of Education, to authorize appropriations for the conduct of said department, to authorize the appropriation of money to encourage the States in the promotion and support of education, and for other purposes."

This is identical with the Sterling-Towner Bill of last session. It provides for the creation of a Department of Education with a Secretary in the President's Cabinet; for the transfer of the Bureau of Education to this Department; for the authorization of appropriation of $500,000 to carry on research in (*a*) illiteracy; (*b*) immigrant education; (*c*) public school education, and especially rural education; (*d*) physical education, including health education, recreation,

and sanitation; (*e*) preparation and supply of competent teachers for the public schools; (*f*) higher education; and in such other fields as, in the judgment of the Secretary of Education, "may require attention and study"; for appropriations totaling $100,000,000 "to encourage the states" in removing illiteracy, in Americanization of immigrants, in equalizing educational opportunities, in promoting physical education and in preparation of teachers for public school service; for the creation of a National Council on Education of 100 members consisting of the chief educational authorities of the states and 25 educators and 25 persons not educators appointed by the Secretary of Education.

S. 1409.

Introduced by Mr. Fess, December 17, 1923. "To provide for the promotion of physical education in the United States through cooperation with the states in the preparation and payment of supervisors and teachers of physical education, including health supervisors and school nurses, to appropriate money and regulate its expenditure, and for other purposes."

This bill provides for an appropriation of $10,000,000 for the first year and for subsequent years an amount sufficient to allow $1.00 per child of school age to each state for the purpose of cooperating with the states in developing physical education. There is created a Division of Physical Education in the Bureau of Education, and an appropriation of $300,000 is authorized to administer this work. An appropriation of $200,000 annually is authorized to the Public Health Service to cooperate with the Bureau of Education in this work. No money may be apportioned to a state unless a sum equally as large is provided by a state or by local authorities for the same purpose.

S. 1410.

Introduced by Mr. Fess, December 17, 1923. "To create a national university at the seat of the Federal Government."

The purposes of the proposed national university, as defined in this bill are: "First. To promote the advance of science, pure and applied, and of the liberal and fine arts by original investigation and research and by such other means as may appear suitable to the purpose in view. Second, to provide for the higher instruction and training of men and women for posts of importance and responsibility in the public service of state or nation, and for the practice of such callings and professions as may require for their worthy pursuit a higher training. Third, to cooperate with the scientific departments of the Federal Government, with the colleges of agriculture and mechanic arts founded upon the proceeds of the Federal land grant of the Act of 1862, with the state universities, and with other institutions of higher learning." The university shall not confer academic degrees but shall be open only to graduates of recognized colleges. The governing board is a Board of Trustees, consisting of the Commissioner of Education and 12 members appointed by the President for a period of twelve years. There shall also be an Advisory Council composed of one representative from each state in the Union. This representative shall be the President of the State University wherever such an institution exists, otherwise a citizen of the state appointed by the governor. All by-laws and general rules for the conduct of the university are subject to review by the Advisory Council. The Board of Trustees is authorized to accept gifts and legacies from private individuals. The sum of $500,000 is authorized to be appropriated for the use of the university for the fiscal year 1924-25.

S. 2590.

Introduced by Mr. Fess, February 22, 1924. "To amend sections 1, 3, and 6 of an Act entitled 'An Act to provide for the promotion of vocational rehabilitation of persons disabled in industry or otherwise and their return to civil employment.'"

This bill is identical with H. R. 5478. It has just been favorably reported by the House Committee.

S. 2713.

Introduced by Mr. Capper, March 3, 1924. "To provide for the promotion of physical education in the United States through cooperation with the states in the preparation and payment of supervisors and teachers of physical education, and for other purposes."

This bill is identical with H. R. 4800 (see below), excepting that it includes no authorization for appropriation.

H. R. 157

Introduced by Mr. Purnell, December 5, 1923. "To authorize the more complete endowment of agricultural experiment stations, and for other purposes."

This authorizes appropriations, in addition to the amounts now received by agricultural experiment stations, of gradually increasing sums beginning with $15,000 for the first year and ending with $85,000 for the seventh year, and annually thereafter. These funds are applicable "only to paying the necessary expenses of conducting investigations or making experiments bearing directly on the production, manufacture, preparation, use, distribution, and marketing of agricultural products and including such scientific researches as have for their purpose the establishment and maintenance of a permanent and efficient agricultural industry, and such economic and sociological investigations as have for their purpose the development and improvement of the rural life, and for printing and disseminating the results of said researches."

The Secretary of Agriculture is required before July 1 each year to ascertain whether the state is complying with the provisions of this act and is entitled to receive its share of the appropriations, or to determine the amount which each state is entitled to receive. If the Secretary of Agriculture withholds any portion of the funds, the state is au-

thorized to appeal to Congress from the determination of the Secretary of Agriculture.

H. R. 633.

Introduced by Mr. Dallinger, December 5, 1923, and reported out of Committee, February 7, 1924. "To provide for a Library Information Service in the Bureau of Education."

This bill authorizes an appropriation of $23,500 for the creation in the Bureau of Education of a service to be called the Division of Library Service. The purpose of the Division is "to increase the efficiency of American libraries by providing current information concerning Government activities. It shall collect and organize information regarding printed matter issued by the Federal Government, and shall make available to the libraries of the United States the sources of such information. It shall provide digests of this material, with suggestions as to its use, in order that such material may be made quickly available to the users of libraries."

H. R. 3923.

Introduced by Mr. Reed, December 17, 1923. "To create a Department of Education, to authorize appropriations for the conduct of said department, to authorize the appropriation of money to encourage the states in the promotion and support of education, and for other purposes."

This bill is identical with S. 1337 above and with the Sterling-Towner bill of last session.

H. R. 4121.

Introduced by Mr. Johnson, January 22, 1924. "To extend the provisions of certain laws to the Territory of Hawaii."

This bill extends the cooperation of the Federal Government with the states in the building of roads, the Federal Farm Loan Act, the Maternity Act, the Promotion of Vocational Education Act, and the Promotion of Vocational Rehabilitation Act, to the Territory of Hawaii. It

authorizes appropriations of $13,000 annually for carrying out the Maternity Act and $30,000 annually for carrying out the Vocational Education Act and $5,000 annually for carrying out the Vocational Rehabilitation Act in Hawaii.

H. R. 6294.

Introduced by Mr. Davila, January 28, 1924. "To extend the provisions of certain laws to Porto Rico."

This bill extends to Porto Rico the cooperation of the Federal Government in the same laws that are extended to Hawaii in H. R. 4121. It authorizes no appropriations for this purpose.

H. R. 4800.

Introduced by Mr. Bacon, January 7, 1924. "To provide for the promotion of physical education in the United States through cooperation with the states in the preparation and payment of supervisors and teachers of physical education, to appropriate money and regulate its expenditure, and for other purposes."

This bill provides that the Secretary of the Interior, through the Bureau of Education, shall cooperate with the states in the universal extension of the opportunities of physical education to the youth of the nation. It authorizes an appropriation of $5,000,000 annually to be distributed to the states on the 50-50 principle. It creates a Division of Physical Education in the Bureau of Education and authorizes an appropriation of $200,000 to maintain it.

H. R. 5478.

Introduced by Mr. Dallinger, January 15, 1924. "To amend sections 1, 3, and 6 of an Act entitled 'An Act to provide for the promotion of vocational rehabilitation of persons disabled in industry or otherwise and their return to civil employment."

This bill authorizes an annual appropriation of $1,000,000 for a period of four years to enable the Federal Board for Vocational Education to continue its present cooperation with the states in the maintenance of vocational rehabilitation

of industrial or disabled persons. The state is required to match the federal funds dollar for dollar and to submit annually to the Federal Board for approval a plan showing "(*a*) the kinds of vocational rehabilitation and schemes of placement for which it is proposed the appropriation shall be used; (*b*) the plan of administration and supervision; (*c*) courses of study; (*d*) methods of instruction; (*e*) qualification of teachers, supervisors, directors, and other necessary administrative officers or employees; (*f*) plans for the training of teachers, supervisors, and directors." In order to secure these benefits, the states must accept the provisions of the Act and "empower and direct the board designated or created as the State Board for Vocational Education to cooperate as herein provided with the Federal Board for Vocational Education in the administration of the provisions of this Act."

For the purpose of this Act the term "disabled persons" "shall be construed to mean any person who by reason of a physical defect or infirmity, whether congenital or acquired by accident, injury, or disease, is, or may be expected to be, totally or partially incapacitated for remunerative occupation; the term 'rehabilitation' shall be construed to mean the rendering of a person disabled fit to engage in a remunerative occupation."

The Federal Board for Vocational Education is authorized to make and establish such rules and regulations as may be necessary or appropriate to carry into effect the provisions of this Act, and is given power to withhold the allotments of moneys to any state whenever it shall be determined that moneys allotted are not expended for the purposes and conditions of this Act. The Board is given in addition an appropriation of $75,000 annually for a period of four years for the purpose of making studies, investigations, and reports regarding vocational rehabilitation or disabled persons and is authorized and empowered to receive such gifts and donations from either public or private sources as may be offered unconditionally.

This bill was reported out of committee on February 7, 1924, the majority report urging its early passage and a minority report objecting to the cooperation of the states on the 50-50 principle as unconstitutional.

H. R. 5795.

Introduced by Mr. Dallinger, January 19, 1924. "To establish a Department of Education and Welfare."

This bill provides for the creation of a Department of Education and Welfare with a Secretary in the President's Cabinet. The Department consists of four main divisions, namely: (1) education; (2) public health; (3) social service; (4) veterans service. Each division shall be under an Assistant Secretary of Education and Welfare. That the office of Commissioner of Education in the Department of the Interior; the office of the Surgeon General in the Treasury Department; the offices of the chief, assistant chief, and private secretary to the chief of the Children's Bureau in the Department of Labor; the office of the Director of the Veterans' Bureau; the Federal Board for Vocational Education; the Board of Managers of the National Home for Disabled Volunteer Soldiers, and the Board of Commissioners of the Soldiers' Home are abolished. That the bureau called the Office of Education and the Bureau of Pensions in the Department of the Interior, the Public Health Service in the Treasury Department, the Children's Bureau and the bureau known as the Women's Bureau in the Department of Labor, the Freemen's Hospital, and the National Home for Disabled Volunteer Soldiers are transferred to the Department of Education and Welfare. In addition supervision of the Soldiers' Homes and of the Smithsonian Institution are transferred to this Department, and the President is authorized to transfer any other Bureau, Board or Commission in the Federal Government which the President finds will be better administered in this Department. There is appropriated $10,000 to carry out the provisions of this act up to June 30, 1924.